

## Patent Abstracts of Japan

PUBLICATION NUMBER : 09130031  
PUBLICATION DATE : 16-05-97

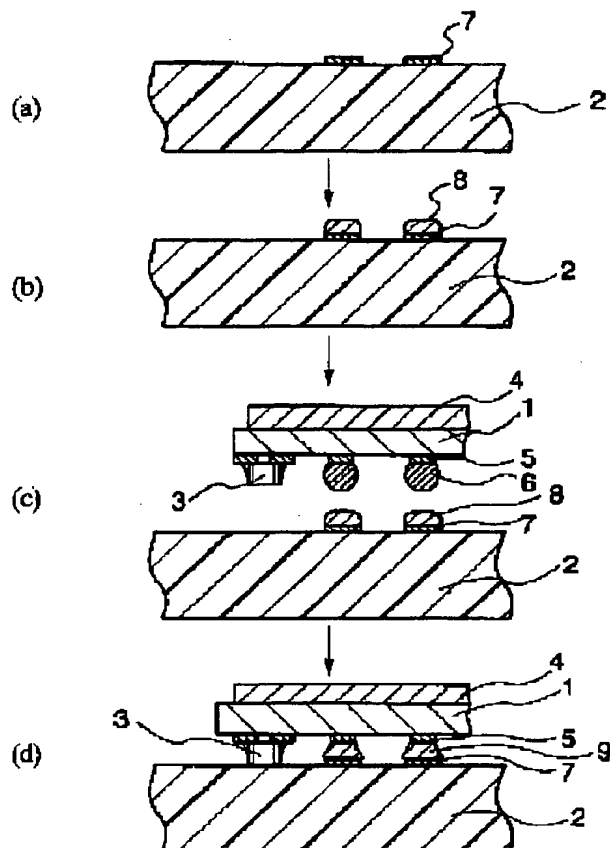
APPLICATION DATE : 27-10-95  
APPLICATION NUMBER : 07279537

APPLICANT : HITACHI INF TECHNOL:KK;

INVENTOR : SAKAGAMI MASAKAZU;

INT.CL. : H05K 3/34 H05K 1/18

TITLE : MOUNTING OF ELECTRONIC PARTS



**ABSTRACT :** PROBLEM TO BE SOLVED: To form the shape of a bump to a drum type from a column type to improve connection reliability of the connecting portion by preventing crushing of excessive bump of solder bump to control the height of bump.

**SOLUTION:** In the mounting structure depending on the method where an electronic part 1 is mounted on the mounting substrate 2 via the solder bump 6 provided on the electronic part 1, an electronic part 1 of the surface mounting type, a printed circuit board 2 for mounting the electronic part 1 and a chip type part 3 provided to the electronic part 1 are comprised and the solder bump 6 which is to be fused and crushed by the weight of the electronic part 1 is supported by a chip type part 3 when the electronic part 1 is to be soldered to the printed circuit board 2. Thereby, the solder bump 6 is formed in the shape of the column or drum like a connection bump 9 and size of gap between the electronic part 1 and printed circuit board 2 is determined by the height of the chip type part 3.

COPYRIGHT: (C) JPO

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-130031

(43)Date of publication of application : 16.05.1997

(51)Int.Cl.

H05K 3/34

H05K 1/18

(21)Application number : 07-279537

(71)Applicant : HITACHI LTD  
HITACHI INF TECHNOL:KK

(22)Date of filing : 27.10.1995

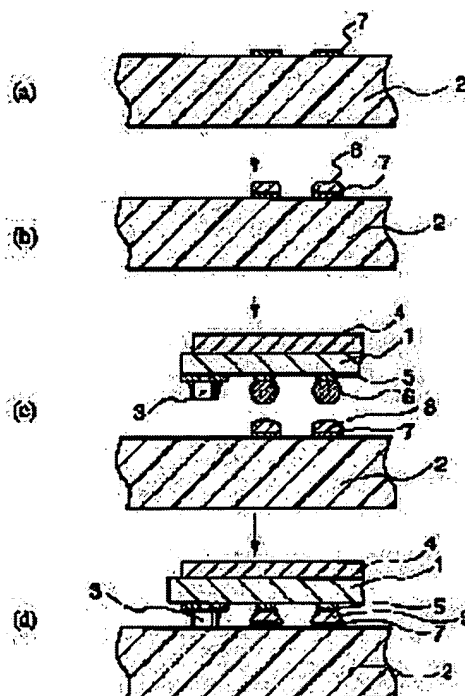
(72)Inventor : ITO HIROSHI  
KAMIMURA YASUHIRO  
SAKAGAMI MASAKAZU

## (54) MOUNTING OF ELECTRONIC PARTS

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To form the shape of a bump to a drum type from a column type to improve connection reliability of the connecting portion by preventing crushing of excessive bump of solder bump to control the height of bump.

**SOLUTION:** In the mounting structure depending on the method where an electronic part 1 is mounted on the mounting substrate 2 via the solder bump 6 provided on the electronic part 1, an electronic part 1 of the surface mounting type, a printed circuit board 2 for mounting the electronic part 1 and a chip type part 3 provided to the electronic part 1 are comprised and the solder bump 6 which is to be fused and crushed by the weight of the electronic part 1 is supported by a chip type part 3 when the electronic part 1 is to be soldered to the printed circuit board 2. Thereby, the solder bump 6 is formed in the shape of the column or drum like a connection bump 9 and size of gap between the electronic part 1 and printed circuit board 2 is determined by the height of the chip type part 3.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of

rejection]

[Date of requesting appeal against examiner's decision  
of rejection]

[Date of extinction of right]

Copyright (C); 1998,2000 Japan Patent Office